

TINYAKOV, G.G.; TINYAKOV, Yu.G.

Spontaneous chromosome mutations under normal and pathological conditions. Dokl.AN SSSR 134 no.1:187-190 S '60.

(MIRA 13:8)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti. Predstavleno akad. I.I.Shmal'gauzenom.
(Chromosomes)

TINYAKOV, G.G.; GRANIKOV, D.A.; MIKHEYEVA, G.A.

Microstructure of hard rennet cheeses. Izv. vys. ucheb. zav.;
pishch. tekhn. no.4:68-74 '61. (MIRA 14:8)

1. Moskovskiy tekhnologicheskij institut myasnoy i molochnoy
promyshlennosti, kafedra tekhnologii moloka i molochnykh produktov
i kafedra anatomii i gistologii.
(Cheese)

TINYAKOV, G.G.; TINYAKOV, Yu.G.

Origin of cancer in the light of proliferative variability of normal cells. Dokl. AN SSSR 141 no.4:998-1001 D '61. (MIRA 14:11)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti i Institut terapii Akademii meditsinskikh nauk SSSR. Predstavleno akademikom I.I. Shmal'gauzenom.
(CANCER)

42683

27.1220

S/747/62/000/000/004/025
D268/D307

AUTHORS: Arsen'yeva, M. A., ~~Tinyakov, G. G.~~, Wang Ang-ch'ih, Ma
Hsiu-ch'uang and Chang Chun-shu

TITLE: Cytogenetic radiosensitivity of sexual cells in monkeys
and mice at small and other dose levels

SOURCE: Radiatsionnaya genetika; sbornik rabot. Otd. biol. nauk
AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 50-62

TEXT: In continuation of earlier work (Trudy mezhd. Konf. po mirno-
mu ispol'zov. atomnoy energii, M., 385-396, 1959) male monkeys (Ma-
caca mulatta: 16 5 - 14 year-old individuals) and 2 - 3 month-old
white mice were wholebody irradiated with single exposures to x rays
at 10 - 400 r for the former and 10 - 600 r for the latter and were
also irradiated with Co^{60} gamma-rays at 10 and 50 r. Irradiation in-
creased the chromosome reorganization rate in germinal cells in both
subjects, the average rate being 0.115 and 0.057% in monkeys and
mice respectively for 1 r at 10 days after exposure. Cytological and

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Cytogenetic radiosensitivity ...

S/747/62/000/000/004/025
D268/D307

histological analyses of testes at different times after irradiation showed disruption of spermatogenesis in monkeys after 10 r, temporary sterility at 30 days following 30 r, and at 20 days following 200 r. Temporary sterility was detected in mice at 20 days after 200 r. Results showed higher radiosensitivity in the germinal epithelium of monkeys than in mice. The rate of chromosome reorganization in monkeys at 10 days is thought to double at 3.8 r, and that in mice at 9.3 r, showing that the radiosensitivity of the germinal epithelium in monkey is 2 - 2 1/2 times higher than that in mice. There are 9 figures and 2 tables. X

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moskva (Institute of Biological Physics AS USSR, Moscow) and Institut biologicheskoy fiziki AN KNR, Pekin (Institute of Biological Physics AS CPR, Peking)

Card 2/2

BEM, Rudolf [Böhm, Rudolf]; PLEVA, Vladimir; VOL'SHANSKIY, M.I.
[translator]; TINYAKOV, G.G., doktor biol. nauk, prof.
red.; TSIPERSON, A.L., red.

[Microscopy of meat and raw material of animal origin.
Translated from the Czech] Mikroskopiia miasa i syr'ia
zhivotnogo proiskhozhdeniia. Izd.2., perer. i dop. Mc-
skva, Pishchevaia promyshlennost', 1964. 334 p.
(MIRA 18:3)

TINYAKOV, G.G.; BULOCHNIKOVA, Ye.K.

Mitotic and chromosome-aberrational reaction of lymphatic ganglia caused by sarcoma 45. Dokl. AN SSSR 165 no.3:683-685 N '65. (MIRA 18:11)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti. Submitted May 20, 1965.

TINYANOV, G.G.

Maps of chromosomes of the salivary gland in *Drosophila funebris*.
Biol. MOIP. Otd. biol. 70 no.4:141-144 J1-Ag '65. (MIRA 18:9)

TINYAKOV, G.G., prof.

Gregor Mendel, the founder of the science of heredity, 1822-1884;
centennial of the foundation of experimental genetics. Veterinaria
42 no.7:112-113 J1 '65. (MIRA 18:9)

TINYAKOV, G.G.; TINYAKOV, Yu.G. (Moskva)

Mechanism of cell reproduction and cancerogenesis. (Zh. pat. 25
no.3:9-26 '63. (MIRA 17:12)

1. Iz kafedry anatomii i gistologii Moskovskogo tekhnologicheskogo
instituta myasnoy i molochnoy promyshlennosti i laboratorii patolo-
gicheskoy anatomii instituta terapii AMN SSSR.

TINYAKOV, G.G.; BULOCHNIKOVA, Ye.K.

Reaction of the bone marrow and spleen to the effect of
Ehrlich's ascitic tumor. Dokl. AN SSSR 153 no.1:233-236
N '63. (MIRA 17:1)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy
promyshlennosti. Predstavleno akademikom I.I. Shmal'gauzenom.

*

TELENIN, G.F. (Moskva); TINYAKOV, G.P. (Moskva)

Nonstationary supersonic flow about a blunt cone. Izv.AN SSSR.Otd.
tekhn.nauk.Mekh.i mashinostr. no.2:97-105 Mr-Ap '61. (MIRA 14:4)
(Aerodynamics, Supersonic)

TIRANOV, G.P., inzh.

Control of the tightness of the knitting on type KAS automatic
circular hosiery knitting machines. Nauch.-issl.trudy VNIITP
no.4:3-10 '63.
(MIRA 17:4)

L 8810-65 EWT(1)/EPA(b)/FGS(k)/EWA(1) Pd-4 ASD(f)/ASD(a)/SSD/ASD' -3/
 AFETR/AEDC(a)/BSD/AFTC(a)/AFWL/E3D(dp)/ESD(gs)/ESD(t) RM
 ACCESSION NR: AP4043886 S/0179/64/000/004/0009/0028

AUTHOR: Gilinskiy, S. M. (Moscow); Telenin, G. F. (Moscow); Tinyakov, G. P. (Moscow)

TITLE: A method for calculating supersonic flow past blunt-nosed bodies with a detached shock wave

SOURCE: AN SSSR. Izvestiya. Mekhanika i mashinostroyeniye, no.4, 1964, 9-28

TOPIC TAGS: supersonic flow, shock wave, flow past blunt body, numerical method, supersonic perfect gas flow, equilibrium flow, non-equilibrium flow

ABSTRACT: A numerical method suggested by G. F. Telenin for calculating supersonic flow over blunt-nosed bodies with a detached shock wave is outlined. The authors present certain results from systematic investigations of supersonic flow of a perfect gas past bodies of various shapes, such as ellipsoids with various axis ratios, bodies with analytical contours of nearly toroidal shape with slightly rounded corners, bodies with concave contours near a critical point, bodies with contour-curvature discontinuities in the subsonic

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L 8810-65

ACCESSION NR: AP4043886

region, and bodies with contour breaks at the sonic point. Flows over bodies of various shapes at Mach numbers tending to ∞ and with adiabatic indices tending to one, and equilibrium and nonequilibrium air flows past a sphere are analyzed and discussed. The problem of supersonic flow with a detached shock wave is formulated, and the concepts of the method employed are outlined on the basis of analysis of properties of the solutions of elliptic and mixed, model linear equations. The same method is applied to the solution of the nonlinear, boundary-value problem formulated in the first section of the article. Examples illustrating applications of the method are presented and the results are summarized in graphs. Orig. art. has: 11 figures and 52 formulas.

ASSOCIATION: none

SUBMITTED: 17Mar64

ATD PRESS: 3107

ENCL: 00

SUB CODE: ME, AS

NO REF SOV: 008

OTHER: 013

Card 2/2

GILINSKY, S.M. (Moskva); TELENIN, G.F. (Moskva); TINYAKOV, G.P. (Moskva)

Method for calculating a supersonic flow about blunt bodies
with a detached shock wave. Izv. AN SSSR Mekh. i mashinostr.
no.4:9-28 JI-Ag '64 (MIRA 17:8)

TRERNIN, G. I.; TUNYASOV, G. I.

- Supersonic flow of air and carbon dioxide gas past a sphere at thermodynamic equilibrium. Dokl. AN USSR 159 no. 1: 39-42 N 1964. (MIRA 17:12)

I. Nauchno-issledovatel'skiy institut mekhaniki Moskovskogo gosudarstvennogo universiteta. Predstavleno akademikom G. I. Petrovym.

L 15324-65 EWT(1)/EWP(m)/EJA(d)/FCS(k)/EWA(1) Pd-1 AFWL/BSO/SSD(b)/SSD/
AEDC(a)/ASD(f)-2/ASD(p)-3/AFETR/AFTC(a)/ESD(dp)
ACCESSION NR: AP4049124 S/0020/64/159/001/0039/0042

AUTHOR: Telenin, G. F.; Tinyakov, G. P.

TITLE: Investigation of supersonic flow of air and CO₂ at thermal equilibrium past a sphere

SOURCE: AN SSSR. Doklady*, v. 159, no. 1, 1964, 39-42

TOPIC TAGS: supersonic flow, shock wave, thermal equilibrium flow, supersonic flow past sphere, shock detachment, dissociation

ABSTRACT: The results are presented of a numerical investigation of supersonic flow around a sphere by a mixture of air and CO₂ considered to be in thermal equilibrium. Calculations were carried out on a computer for a wide range of flow parameters (M_∞ , 3 to 50; pressures, 10^{-5} to 1 atm; temperature, 200 to 1500K). A system of differential equations describing the adiabatic motion of a gas in thermal equilibrium is derived and solved by the method of finite difference, on the basis of multiple solutions of the Cauchy problem in the direction from the shock wave to the body. Analysis of flow fields obtained in a flow of perfect gases with different adiabatic exponents over blunt-

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L 15324-65

ACCESSION NR: AP4049124

nosed bodies shows that in all subsonic regions, and especially near the symmetry axis, density changes comparatively slowly and differs very little from its value behind the shock. The dependencies of shock detachment on density ratio and also on pressure and temperature are given in graphs. It is stated that dissociation, and consequently the dependence on pressure, begin at $M_\infty = 6-8$. Orig. art. has: 4 figures, 3 tables, and 3 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut mekhaniki Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Scientific Research Institute of Mechanics, Moscow State University)

SUBMITTED: 23Apr64

ENCL: 00

SUB CODE: ME, AS

NO REF SOV: 004

OTHER: 000

ATD PRESS: 3138

Card 2/2

D'YAKONOV, Yu.N.; TELENIN, G.F.; TINYAKOV, G.P. (Moscow):

"Study of three-dimensional flow past bodies with detached shock wave."

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

TELENIN, G.F.; TINYAKOV, G.P.

Method for calculating a three-dimensional flow past bodies.
following the passage of a shock wave. Dokl. AN SSSR. 154
no.5:1056-1058 F'64.
(MIRA 17:2)

1. Predstavleno akademikom G.I. Petrovym.

24542

10.1220

S/179/61/000/002/008/017
E081/E141

AUTHORS: Telenin, G.F., and Tinyakov, G.P. (Moscow)
TITLE: Unsteady supersonic flow past a cone with a blunt vertex
PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1961, No.2, pp. 97-105

TEXT: The supersonic flow past the spherical-conical body ABC (see Fig.1) is analyzed. The spherical part of the body is AB and merges into the conical part at B. The semi-angle of the cone is θ_0 ; ME is the density discontinuity in the gas, and QP is the acoustic line. The body is subjected to small vibrations about the point O given by $\alpha = \alpha_0 \cos \omega t$, where α is the instantaneous angle of attack. It is assumed that $\alpha_0 \ll 1$, $\omega L/V_1 \ll 1$, where V_1 is the velocity of the gas stream; that point B always lies in the supersonic region; and that the velocity V , pressure p and density ρ in the gas stream can be represented by:

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Unsteady supersonic flow past a cone with a blunt vertex

$$\mathbf{v} = \mathbf{v}_0 + \alpha \mathbf{v}_\alpha + \alpha' \mathbf{v}_{\alpha'}, \quad p = p_0 + \alpha p_\alpha + \alpha' p_{\alpha'},$$

$$\rho = \rho_0 + \alpha \rho_\alpha + \alpha' \rho_{\alpha'}$$

(1.3)

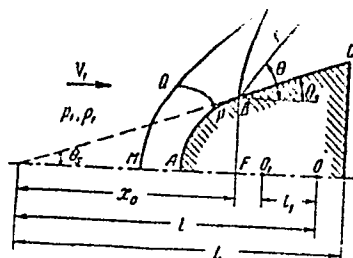
On this basis, the flow is analyzed separately in the two regions ABDM and DBC, the first corresponding to flow past a sphere, and the second to flow past a cone. In each region, the solutions satisfy the gas-dynamic equations and the boundary conditions. The two solutions are combined so as to satisfy the conjunction of a sphere and a cone at B, and are used to find expressions for the aerodynamic moment M_2 acting on the body when vibrating in a supersonic field. The quantities determining M_2 are calculated for Mach 4, and are plotted against l/L for various values of the semi-angle of the cone. The coefficients are also determined for a vibrating sphere.

There are 5 figures and 2 Soviet references.

SUBMITTED: December 10, 1960

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Fig. 1



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TINYAKOV, N.

When you're smart. Zhil.-kom.khoz. 12 no.8:31 Ag '62.

1. Direktor Orlovskogo banno-prachechnogo kombinata. (MI'A 16:2)
(Baths, Public) (Laundries, Public)

L 10936-66

ACC NR: AF6002315

SUB CODE: 20 / SUBM DATE: 18Feb65/ ATD PRESS: 4170

0

BC
Card 2/2

RUTSKIY, Aleksandr Ivanovich; ZAGOROVSKIY, Ye.N., kand. tekhn. nauk, prepodavatel'; RUMYANTSEV, Yu.G., inzh., prepodavatel'; SKVARKO, E.A., inzh., prepodavatel', red.; TINYAKOV, N.A., kand. tekhn. nauk, dots., red.; VARENIKOVA, V., tekhn. red.

[Electric power plants and substations; principal electrical equipment] Elektricheskie stantsii i pddstantsii; osnovnoe elektricheskoe oborudovanie. Minsk, Gos.izd-vo BSSR. Red. nauchno-tekhn. lit-ry, 1962. 423 p. (MIRA 16:3)

1. Kafedra elektricheskikh stantsiy Belorusskogo politekhnicheskogo instituta (for Zagorovskiy, Rumyantsev).
(Electric power plants) (Electric substations)

S/143/60/007/007/011/012/XX
D271/D305

AUTHORS: Zhunina, L.A., Tinyakov, N.A., Candidates of Technical Sciences, Docents

TITLE: New glass for high-voltage insulators

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 7, 1960, 51-55

TEXT: The article reports on work carried out at the Belorusskiy politekhnicheskiy institut (Belorussian Polytechnic Institute). An increasing demand for insulators in all regions of the Soviet Union and the resulting difficulty in satisfying local needs prompted the BSSR to organize its own production of insulators. The materials problem was solved by utilizing glass. Glass insulators have the following advantages: 1) A higher electric and mechanical strength compared to porcelain which makes it possible to reduce the size of glass insulators; 2) Smaller sized glass insulators make it possible to reduce metal consumption for reinforcement and the sizes of poles or with equal poles, to increase the span; 3)

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New glass for high-voltage insulators

S/143/60/000/007/011/012/XX
D271/D305

Glass insulators are made of widespread cheap raw materials; 4) The technology of glass insulators permits overall automation of the production process at lower costs than those for porcelain insulators; 5) The application of hardened suspension glass insulators eliminates the need for their inspection during the service by means of a rod or other methods; 6) Testing finished hard glass insulators is much simpler than testing porcelain insulators and can be fully mechanized; 7) Capital investments are lower than for a comparable volume of production of porcelain insulators. Studies on optimum glass composition for high-voltage insulators are being carried out at the Belorussian Polytechnic Institute. Based on preliminary experiments it was decided to seek such an optimum composition in the $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-CaO-MgO-NaO}$ system. As raw materials for glass of this system such widespread materials can be used as quartz sand, kaolin, dolomite, limestone, manganese ore. Nine sand-kaolin-chalk-dolomite-pyrosulite and three sand-kaolin-dolomite-pyrolusite mixtures (Table 1) were processed under the following conditions: charge beginning at 1300°C , charge end at 1200°C , temperature raised over 1 hour to $1380\text{-}1420^\circ\text{C}$, exposure at this tem-

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New glass for high-voltage insulators S/143/60/000/007/011/012/XX
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perature during 0.5 - 1 hour, temperature reduction to 1300° during 1 hour, yield at 1300-1320°C. It was established that almost all types of glass of this series show good processing properties; they can be easily cast, pressed, rolled and drawn to threads. The interval of technological viscosity is sufficient for products of a complex configuration. The following characteristics of the glass types were investigated: 1) Technological characteristics: fusing and yielding capacities (visually); 2) Physico-chemical properties: crystallizing capacity (polythermic method), softening temperature (I.I. Kitaygorodskiy's device) [Abstracter's note: Not described] specific gravity, thermal resistance (air-water method), linear expansion coefficient (tubular dynamometer), chemical resistance to water and to binormal sodium solution (powder method recommended by VNIIS); 3) Mechanical characteristics: microhardness and microtransparency (ПМТ (PMT) -3 device); 4) Electric characteristics, determined according to GOST 6433-52: specific resistance (galvanometer and F-57 ohmmeter), dielectric phase angle tangent and dielectric permeability (МДП (MDP) high-voltage bridge), electric strength (60 kilovolts, 5 kilowatts testing unit). Four glass

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New glass for high-voltage insulators S/143/60/000/007/011/012/XX
D271/D305

compositions with the best technological, physico-chemical and electric properties have been selected for further tests under industrial conditions. There are 2 tables and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

Составы опытных образцов стекла (X)

Table 1. Legend:

(1) Composition of experimental charges and glass
(2) Number of glass; (3) Sand;
(4) Kaolin; (5) Charge (weight);
(6) Chalk; (7) Dolomite; (8) Pyrolusite; (9) Glass (weight %).

Номера сгрупп (2)	Сыпучих, вес. %					Стекла, вес. %				
	Песок (3)	Каолин (4)	Мел (6)	Доломит (7)	Пиролу- зит (8)	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO
19/I	31,47	12,65	10,90	45,72	11,12	55,00	5,00	20,00	10,00	10,00
19/II	31,47	12,65	1,94	45,72	16,65	55,00	5,00	15,00	10,00	15,00
19/III	43,20	25,40	14,28	22,86	16,65	55,00	10,00	15,00	5,00	15,00
19/IV	32,04	25,40	—	68,58	5,55	55,00	10,00	15,00	15,00	5,00
19/V	37,34	37,95	1,94	45,72	5,55	55,00	15,00	15,00	10,00	5,00
19/VI	37,34	37,95	14,28	22,86	11,12	55,00	15,00	15,00	5,00	10,00
19/VII	31,47	50,60	14,28	22,86	5,55	55,00	20,00	15,00	5,00	5,00
19/VIII	37,34	37,95	—	68,58	5,55	55,00	15,00	10,00	15,00	5,00
19/IX	37,34	37,95	—	45,72	11,12	55,00	15,00	11,00	11,00	10,00
19/X	37,34	37,95	9,52	22,86	16,65	55,00	15,00	10,00	5,00	15,00
19/XI	37,34	37,95	23,22	22,86	5,55	55,00	15,00	20,00	5,00	5,00
19/XII	31,47	12,65	14,28	22,86	22,24	55,00	5,00	15,00	5,00	20,00

Card 4/5

New glass for high-voltage insulators S/143/60/000/007/011/012/XX
D271/D305

ASSOCIATION: Belorusskiy politekhnicheskiy institut (Belorussian
Polytechnic Institute)

PRESENTED: On February 16, 1960 by the Kafedry tekhnologii stekla
i silikatov i tekhniki vysokikh napryazheniy (Depart-
ments for Glass and Silicate Technology and High-Vol-
tage Engineering)

Card 5/5

RUTSKIY, A.I., kand. tekhn. nauk, zasl. deyate' nauki i tekhniki
BSSR; ZAGOROVSKIY, Ye.N., inzh.; SLEPYAN, Ya.Yu., kand.
tekhn. nauk; NOVASH, V.I., kand. ~~tekhn. nauk~~; TINYAKOV, N.A.,
kand. tekhn. nauk; POL'SKIY, S., red.; KALECHITS, G., tekhn.
red.; DOMOVSKAYA, G., tekhn. red.

[Electrician's manual] Spravochnoe posobie elektromontera.
2., perer. izd. Pod red. A.I. Rutskogo. Minsk, Gos. izd-vo
BSSR. Red. nauchno-tekhn. lit-ry, 1961. 377 p.

(MIRA 15:4)

(Electric engineering--Handbooks, manuals, etc.)

ZHUNINA, L.A., dotsent, kand.tekhn.nauk; TINYAKOV, N.A., dotsent, kand.
tekhn.nauk

New types of glass for high-voltage insulators. Izv. vys. ucheb.
zav.; energ. 3 no. 7:51-55 J1 '60. (MIRA 13:8)

1. Belorusskiy politekhnicheskii institut. Predstavlena
kafedrami tekhnologii stekla i silikatov i teknik vysokikh
napryazheniy.

(Electric insulators and insulation)

ATABEKOV, G.I.; BASHARIN, A.V.; BOGORODITSKIY, N.P.; BULGAKOV, K.V.;
VASIL'YEV, D.V.; YEGIAZAROV, I.V.; YERMOLIN, N.P.; KOSTENKO, M.P.;
MATKHANOV, P.N.; NOVASH, V.I.; NORNEVSKIY, B.I.; RUTSKIY, A.I.;
RYZHOV, P.I.; SOLOV'YEV, I.I.; SOLODNIKOV, G.S.; SLEPYAN, Ya. Ya.;
SMUROVA, N.V.; TINYAKOV, V.A.; FATEYEV, A.V.; FEDOSEYEV, A.M.;
SHABADASH, B.I.; SHCHEDEFIN, N.N.

Viktor Ivanovich Ivanov, 1900-1964; obituary. Izv. vys. ucheb.
zav.; energ. 8 no.1:122-123 Ja '65.

(MIRA 18:2)

STEPANCHUK, K.F., inzh.; TINYAKOV, N.A., kand. tekhn. nauk, dotsent

Puncture of transformer oil in a flow. Izv. vys. ucheb. zav.;
energ. 7 no.12:13 D '64. (MIRA 12:2)

1. Belorusskiy politekhnicheskiy institut. Predstavlena kafedroy
tekhniki vysokikh napryazheniy.

TINYAKOV, Nikolay Arsen'yevich; VANCHUK, L., red.; VARENIKOVA, V.,
tekhn. red.

[New materials in electric power engineering] Novye ma-
terialy v elektroenergetike. Minsk, Izd-vo "Belorus',"
1963. 174 p.
(MIRA 17:2)

SLEPYAN, Ya.Yu., kand.tekhn.nauk, dotsent; TINYAKOV, N.A., kand.tekhn.nauk,
dotsent

"Development of Power Engineering in White Russia" by I.F.Voloshina.
Reviewed by IA.IU.Slepian and N.A.Tiniakov. Izv. vys. ucheb. zav.;
energ. 5 no.9:130-131 S '62. (MIRA 15:10)

1. Belorusskiy politekhnicheskii institut.
(White Russia—Power engineering) (Voloshina, I.F.)

STEPANCHUK, K.F., inzh.; TINYAKOV, N.A., kand.tekhn.nauk, dotsent

Deformation of gas bubbles in a liquid in an electric field.
Izv.vys.ucheb.zav.; energ. 8 no.4:11-18 Ap '65.

(MIRA 18:4)

1. Belorusskiy politekhnicheskiy institut. Predstavlena kafedroy
tekhniki vysokikh napryazheniy.

ОГНЕПЕРОВА, С.В.; СУТЧЕНКОВ, Л.Ф.; ТИТЯКОВ, О.С.

Effect of the microstructure of cakes on their granulation.
Научные труды ВАСХНИЛ. №.7(11) 1965. (1965 10-12)

L 36810-66 EWP(k)/EWT(m)/T/EWP(w)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6924260

SOURCE CODE: UR/0128/66/000/007/0010/0011

AUTHOR: Mirzoyan, G. S. (Candidate of technical sciences); Zav'yalov, V. F. (Engineer); Tinyakov, V. G. (Engineer)

ORG: none

TITLE: Centrifugal casting of thin-wall steel shells

SOURCE: Liteynoye proizvodstvo, no. 7, 1966, 10-11

TOPIC TAGS: steel, ~~metal tube~~, alloy steel, chromium containing steel, silicon containing steel, nickel containing steel, tungsten containing steel, vanadium containing steel, tube shell, tube shell casting, centrifugal casting/30KhSNVFA steel

ABSTRACT: The possibility of manufacturing 30KhSNVFA steel tube shells 520 mm in diameter, 15-20 mm wall-thickness, and up to 400 mm long, has been investigated. The steel was melted in a basic induction furnace and cast at 1530-1540C in a water-cooled mold at a speed of 400 rpm. Shells with a wall thickness of about 28 mm, cast in 50-30 sec with a metal solidification rate of 0.50-0.90 mm/sec, were found to have longitudinal cracks. No cracks were observed when the pouring time was reduced to 16 sec, and the solidification rate was increased to 1.10-1.70 mm/sec. Castings, annealed at 1100C for 4 hr, furnace cooled to 400C, and then air cooled, had a hardness of about HB228, a tensile strength of 79-89 kg/mm², a yield strength of 52-58

Card 1/2

UDC: 621.74.042:669.141.25

L 36810-55

ACC NR: AP6024260

kg/mm², and a microstructure consisting of lamellar perlite and sorbite without nonmetallic inclusions. The shells were successfully hot rolled into tubes 500 mm in diameter with a wall thickness of 5 mm. Orig. art. has: 3 figures and 2 tables. [AZ]

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 001/ ATD PRESS: 5039

Card 2/2

KOLKER, I.I.; TINYAKOV, Yu.G. (Moskva)

Immunomorphologica¹ study of the cytotoxic effect of antirenal antibodies in Masugi nephritis. Arkh. pat. 27 no.1:32-35 '65.

(MIRA 18:4)

1. Institut khirurgii imeni Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR A.A.Vishnevskiy) AMN SSSR i laboratoriya patologicheskoy anatomii (zav. - prof. A.M.Vikhert) Instituta terapii (dir. - deystvitel'nyy chlen AMN SSSR A.L.Mysnikov) AMN SSSR.

TIFYAKOV, Yu.G. (Moskva)

Organization of fibrin. Arkh. pat. no.12:54-61 '62
(MIRA 18:1)

1. Iz kafedry patologicheskoy anatomii II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova (zav. - deystvitel'nyy chlen AMN SSSR I.V. Davydovskiy) i laboratorii patologicheskoy anatomii (zav. - doktor med. nauk A.M. Vikhert) Instituta terapii AMN SSSR.

TINYAKOV, G.G.; TINAKOV, Yu.G.

Origin of cancer in the light of proliferative variability of normal cells. Dokl. AN SSSR 141 no.4:998-1001 D '61. (MIRA 14:11)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti i Institut terapii Akademii meditsinskikh nauk SSSR. Predstavleno akademikom I.I. Shmal'gauzenom.

(CANCER)

TINYAKOV, O.G.; TINYAKOV, Yu.G.

Spontaneous chromosome mutations under normal and pathological conditions. Dokl.AN SSSR 134 no.1:187-190 S '60.

(MIRA 13:8)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti. Predstavleno akad. I.I.Shmal'gauzenom.
(Chromosomes)

ZORIN, Yevgeniy Timofeyevich; TINYAKOV, Yuriy Mikhaylovich;
ROMADIN, A.G., red.; LIFEROVA, A.I., red.izd-va; FOMICHEV,
P.M., tekhn. red.

[Assembly, operation and repair of bakery equipment] Montazh,
ekspluatatsiia i remont khlebopekarnogo oborudovaniia, Mo-
skva, Izd-vo TSentrosoiuza, 1963. 251 p. (MIRA 16:12)
(Bakeries---Equipment and supplies)

TIPIYAKOVA, N. I.

Pharmacology of sweet William. Trudy Oren. otd. Vses. fizioll.
ob-va no.2:142-146:60. (MIRA 16:8)

1. Kafedra farmakologii (zav. - prof. A.A. Lyubishin) Oren-
burgskogo meditsinskogo instituta.
(PINKS) (VASOMOTOR DRUGS)

KUTSENIK, B.Ye.; TINYAKOVA, Ye.I.; DOLGOPLOSK, B.A.

Interaction between isopropylbenzene hydroperoxide and rongalite, and the use of this reaction for initiating polymerization in acid media. Vysokom.sped. 1 no.12:1830-1839 D '59.
(MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka.

(Polymerization) (Sodium formaldehyde sulfoxylate)
(Hydroperoxides)

ANGELESCU, V.; TIRNOVEANU, G.; TRIFAN, C.; CIOBANU, C.; VOICU, A.

Contributions to the study of staphylococcal gastro-enteritis
in children. Rumanian M. Rev. 4 no.1:58-60 Ja-Mr '60.

1. Hospital for Children in Galati (Director: Dr. Virgil
Anghelescu).

(GASTROENTERITIS in infancy & childhood)

(STAPHYLOCOCCAL INFECTIONS in infancy & childhood)

COUNTRY : USSR
CATEGORY : Farm Animals.
Gattle.
DOC. SOUR. : RLBiol., No. 3, 1950, No. 11985
AUTHOR : Tinyakov, G.G.
INST. : Institute of Animal Morphology. AS USSR
TITLE : Embryonic Development of the Mammary Gland
in Cattle
ORIG. PUB. : Tr. In-ta morfol. zhivotnykh AN SSSR, vyp. 22
116-131
ABSTRACT : The successive development is described of
the mammary gland in cattle from the embry-
onic age of one month to the parturition of
calves of both sexes. It is noted that the
fundamental differentiation of the gland's
epithelial rudiment which forms the epithe-
lial infundibulum, the cervix of the infundi-
bulum, the basic rudimental cistern, the pre-
udder canal and rudimentary cistern of the
udder is accomplished when the fetus reaches
the age
CARD: 1/3

COUNTRY : USSR
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1959, No. 1

AUTHOR :
REL. :
TITLE :

ORIG. PUB. :

ABSTRACT : of 4 months. The mammary gland's earliest element is represented by the mammary canal which is formed by the walls of the epithelial infundibulum which originates in turn in the epithelial cones of 2-month old embryos. At the same time the establishment of the udder's fatty tissue also takes place in the form of fatty islets which consequently undergo rapidly progressing growth in terms of quantity and quality. The formation mechanism of the udder's lymph vessel is

Card: 2/3

• COUNTRY : USSR
CATEGORY :

• ABS. JOUR. : RZhBiol., No. 1959, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : determined as well as the manner in which
their valves develop, consisting of the form-
ation of the vessel's inner endothelial layer
by means of fibroblasts being adsorbed at
the surface of the lymphatic fluid and which
are apparently greatly flattened and tightly
bound to each other. -- A. D. Musin

DAAD: 3/3

TINYAKOV, N.A., dots.; RUMYANTSEV, Yu.G., inzh.

All-Union conference on groundings. Izv.vys.ucheb.zav.; energ. no.12:
118-120 D '58. (MIRA 12:3)

1. Belorusskiy politekhnicheskiy institut.
(Electric currents--Grounding)

TINZAKOV, N.A.

Mechanization of operations at the Orel silica brick factory.
Stroi.mat. 5 no.2:28-29 F '59. (MIRA 12:2)
(Orel--Brickmaking machinery)

..

RUTSKIY, A.I., kand.tekhn.nauk, zasluzhennyy deyatel' nauki i tekhniki BSSR;
ZAGOROVSKIY, Ye.N., inzh.; SLEPYAN, YA.YU., kand.tekhn.nauk; NOVASH,
V.I., kand.tekhn.nauk; TINYAKOV, N.A., kand.tekhn.nauk; KASHTANOV, P.,
red.; STEPANOVA, N., tekhn.red.

[Electrician's handbook] Spravochnoe posobie elektromontera.
Minsk, Gos.izd-vo BSSR, Red.nauchno-tekhn.lit-ry, 1960. 360 p.
(MIRA 13:9)

(Electricity--Handbooks, manuals, etc.)

RUTSKIY, A.I.; LEONKOV, A.M.; GEYLER, L.B.; SLEPYAN, Ya.Yu.; MOSEYEV, I.V.;
SOBOLEV, A.I.; TINYAKOV, N.A.; VOLKOV, N.P.; BOTVINNIK, Ya.Ye.;
BARABANOV, M.Ye.; BRAZGOVKA, V.A.; PEKELIS, G.B.; KUZOVNIKOVA,
Ye.A.; KUZ'MIN, Yu.P.; SHIMKO, N.I.; PALLADIY, N.L.; KHUTSKIY, G.I.

G.I. Dobkin; obituary. Izv. vys. ucheb. zav.; energ. no.4:128 Apr 1958.
(Dobkin, Grigori Izrailevich, 1892-1958) (MIRA 11:6)

TINYAKOV, N.I., inzh.

Standard electric switchbox. Nov.tekh. i pered. op. v stroi.
19 no.7:27 J1 '57. (MIRA 10:10)
(Electric switchgear)

SIDOROV, V.A., inzhener; TINYAKOV, N.I., tekhnik.

Granite and ceramic facing of building facades in winter using
electric heating; construction experience on the Moscow State
University buildings. Gor.khoz.Mosk. 28 no.1:35-37 Ja '54.
(MLRA 7:2)
(Bricklaying--Cold weather conditions)

VIKHERT, A.M.; SEREBROVSKAYA, Yu.A.; TINYAKOV, Yu.G. (Moskva)

Renin and the juxtaglomerular apparatus in experimental
nephritis. Arkh.pat. no.2:17-24 '63 (MIRA 16:11)

1. Iz Instituta terapii AMN SSSR (dir. - deystvitel'nyy chlen
AMN SSSR prof. A.L.Myasnikov.)

TINYAKOV, Yu.G. (Moskva)

Microtome. Arkh. pat. 26 no.2:86 '64.

Cryostat. Ibid.:86-87

(MIRA 17:8)

1. Institut terapii AMN SSSR.

1. IN FHKOV, YU. G.

DAVYOVSKIY, I.Y.; DANILOVA, Y.M.; GULINA, L.A.; POZHOMOVAYA, L.Y.
PLATNITSKIY, S.N.; TIMAZOV, Yu.G.; KHORRAMLOVA, Z.Ye.; CHESNOKOVA, S.A.

Experimental morphological analysis of tissue systems of the body
in "decorticated" animals. Arkh. pat. 22 no. 8:18-34, '68.

(MIRA 14:1)

(CEREBRAL CORTEX)

1. Khramov, A. I. Chem. Engng. Sci.

Dissertation: "Investigation of the Polymerization of 2-Chlorobutadiene-1, 3 in Solutions." Moscow Inst of Fine Chemical Technology imeni M. V. Lomonosov, 24 Mar 47.

SO: Vechernyaya Moskva, Mar, 1947 (Project #17836)

TINYAKOVA, YE. I.

USSR/Organic Chemistry - Theoretical and General Questions on Organic Chemistry,
E-1

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61379

Author: Tinyakova, Ye. I., Dolgoplosk, B. A., Tikhomolova, M. P.

Institution: None

Title: Reactions of Free Radicals in Solutions. III. Study of the Reactions of Free Radicals with Sulfur

Original

Periodical: Zh. obshch. khimii, 1955, 25, No 7, 1387-1394

Abstract: A study of the reactions of methyl, ethyl, isopropyl and allyl free radicals with S and polysulfides. As a source of free radicals use was made of alkyl phenyltriazenes and azobenzene (mechanism of reaction, see communication II, Referat Zhur - Khimiya, 1955, 40009). As solvent was chosen isopropylbenzene (I) in order to evaluate the competing reactions of free radicals with S and with the solvent. A solution of 3.2 mol % triazene and S (6-8 mol per 1 mol triazene) in I was heated at 112° until evolution of gas ceased. It is shown

Card 1/3

USSR/Organic Chemistry - Theoretical and General Questions on Organic Chemistry,
E-1

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61379

Abstract: that free radicals are almost completely taken up by S with the formation of alkyl polysulfides which are the primary products of the reaction and do not depend on the presence of by-products of the reaction, namely amines, in the reaction medium. The above-stated radicals differ greatly by their activity in the reaction of removal of H from I and differ but little in the reaction with S due to the lower energy of activation of this reaction. On reaction of allyl radical with S are formed diallylpolysulfides with a low yield which is explained by the instability of these products. On interaction of azobenzyl [sic] with S (1:13.7) H_2S is formed with a yield of 81-87% and benzaldazine (II), yield 51%. Formation of H_2S and II is the result of oxidation of azabenzyl by S. The author assumes that such reactions of dehydrogenation are also possible in rubbers containing diallyl groupings. It is shown that on reaction of methyl radical with S in the presence of mercaptans (or H_2S) there takes place removal of hydrogen from mercaptan (or H_2S) with formation of hydrocarbons and the radicals RS (or SH). Studied is the reaction of methyl radical with

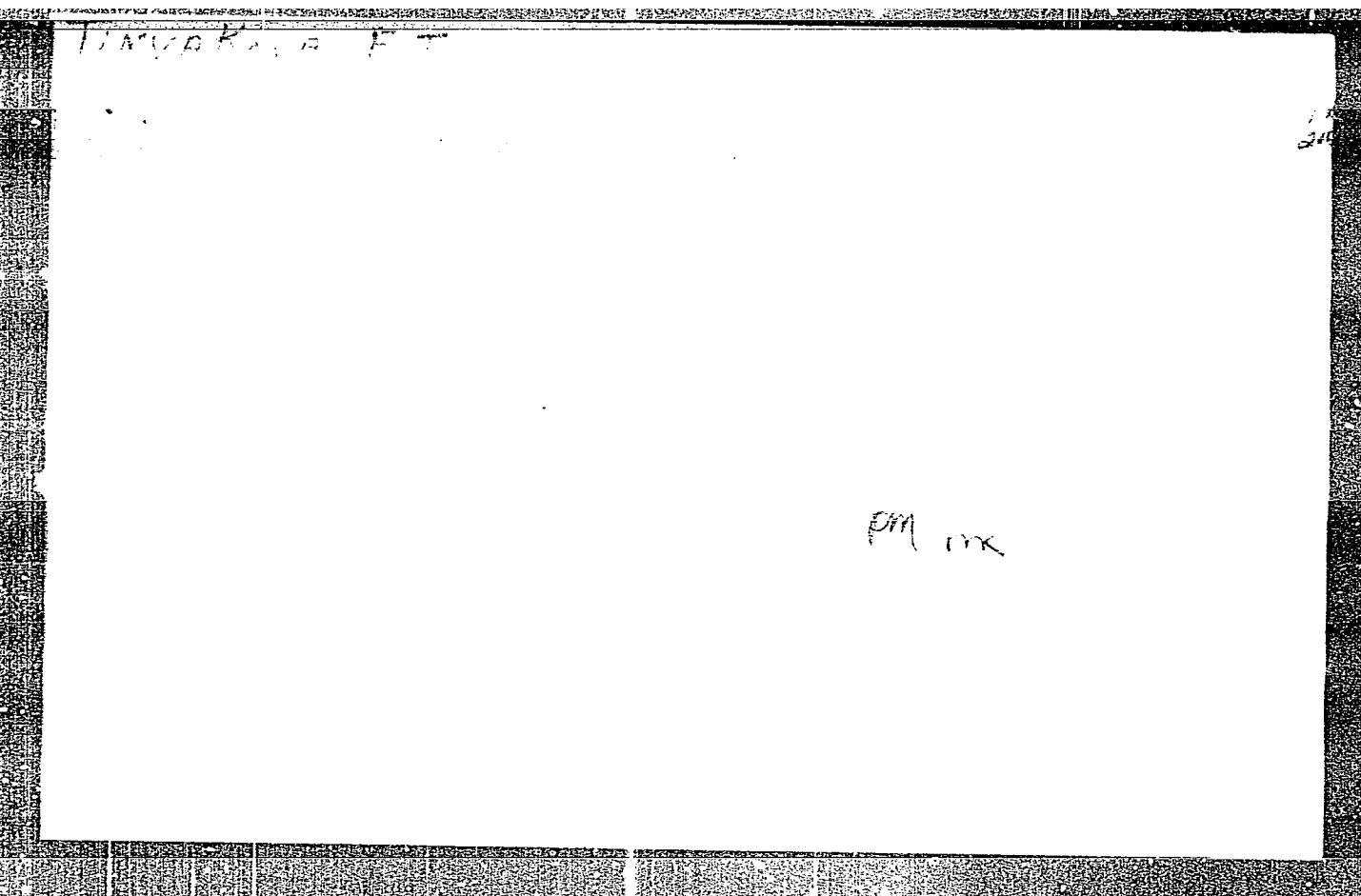
Card 2/3

USSR/Organic Chemistry - Theoretical and General Questions on Organic Chemistry,
E-1

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61379

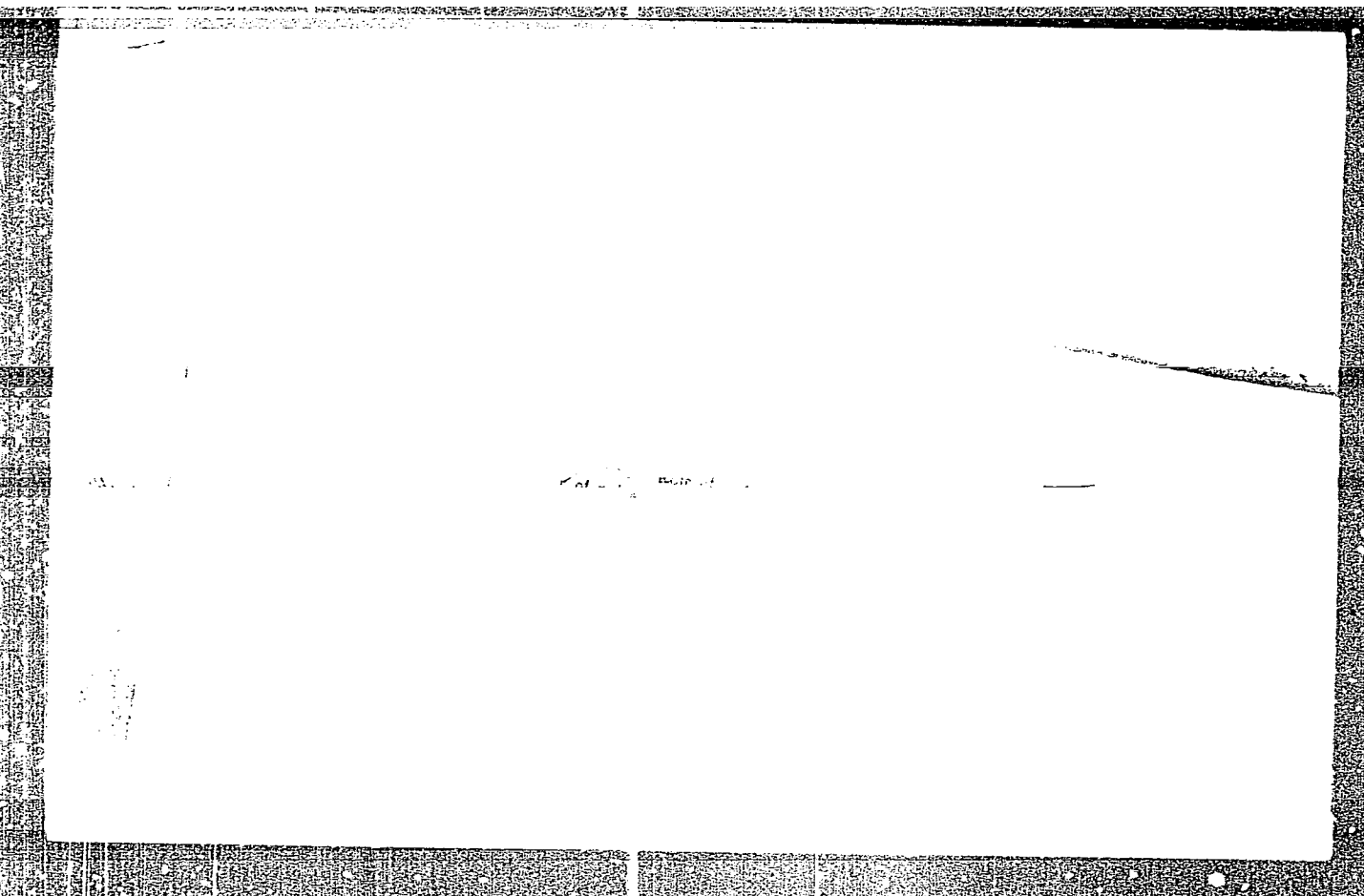
Abstract: polysulfides (dilauryltetrasulfide and dibenzyltetrasulfide), which confirmed the fact that the polysulfides formed in the course of the reaction react with free radicals the same as elemental S. It is shown on the example of dimethylpolysulfide using S³⁵ that under these conditions are formed molecules of dimethylpolysulfide containing on the average 6 atoms of sulfur.

Card 3/3



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APPROVED FOR RELEASE: 07/16/2001

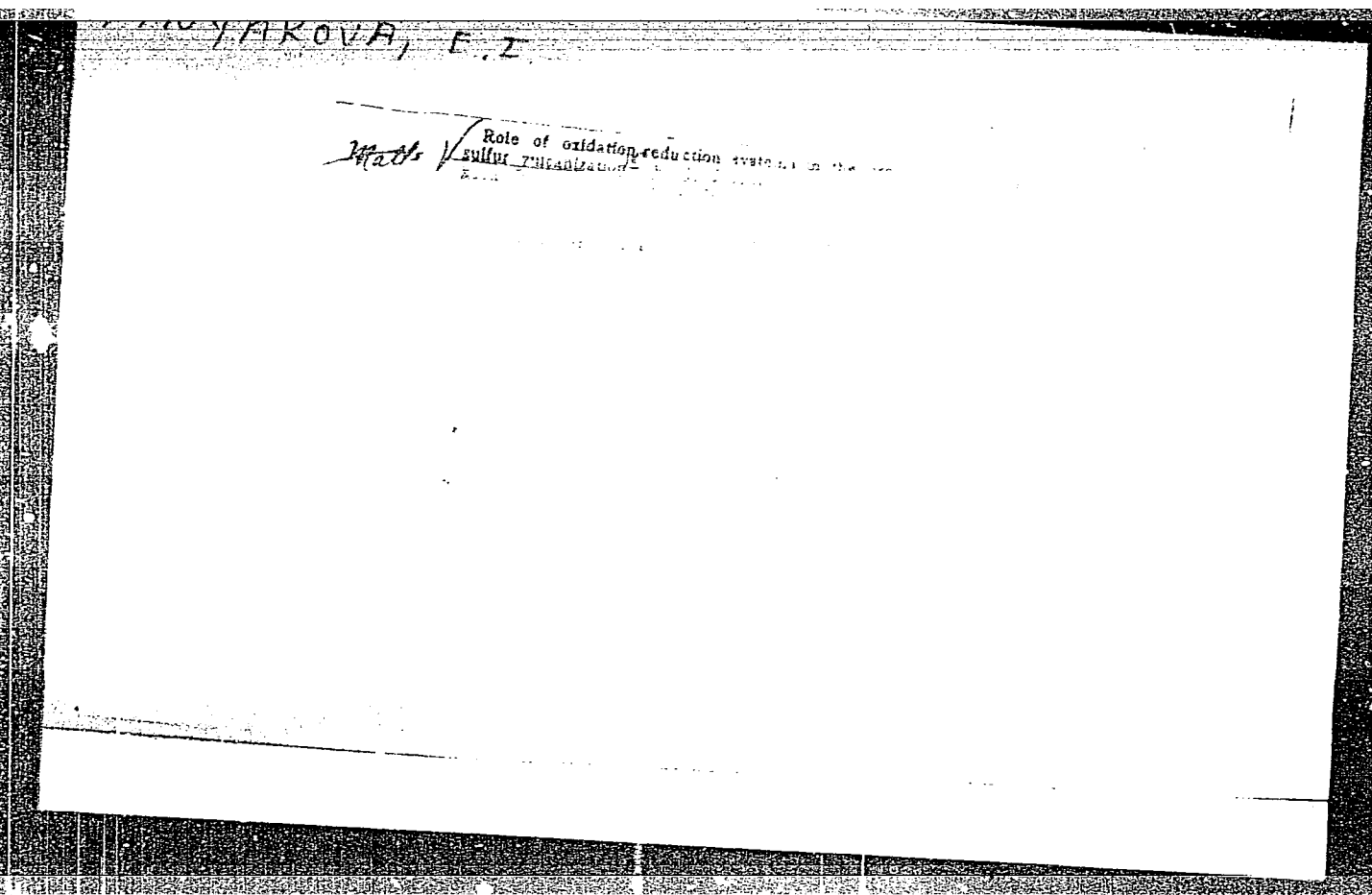
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TINYAK QUAYE

3/

10 4E2C 2 may

Oxidation-reduction systems for initiation of radical processes. 1. Reversible systems with participation of diene hydroperoxides and salts of metals with variable valences. G. P. Polymers, B. A. Dolgopost, and E. I. Tyukovskiy, Izv. Akad. Nauk S.S.S.R., Khim., 1959, 1478-80. The kinetic curves for reactions of dihydroxymaleic acid (I) and ascorbic acid (II) with Ph-CMe₂OOH are shown for reactions in C-free H₂O, under N₂. The reaction rate is considerably increased by addn. of salts of metals with variable valence, Mohr salt and CuSO₄ being the usual addends, with efficient acceleration being noted at -15° or -55°. At such temps., essentially no reaction takes place without such addends. The possible mechanism of radical reactions in the system with II being the reaction of radical cations, the system with I being the reaction of radical anions, is discussed. Effective polymerization of styrene in the system with II is also indicated. The rate of polymerization is 10% of that in the system with Mohr salt & CuSO₄. The rate of polymerization with Mohr salt & CuSO₄ is 10% of that in the system with Mohr salt & CuSO₄.



TINYANOVA, E.Y., JODAPLASH, D. A., and SMYTH, T. P.

"Redox systems in polymerization," a paper presented at the 9th Congress on the Chemistry and Physics of High Polymers, 20 Jan-2 Feb 57, Moscow, Polymer Research Inst.

B-3,004,395

TINYAKOVA, E. Y., DOLGOPLASK, B. A., REYKH, V. P., KALANS, A. L.

"Synthesis of acrylic rubbers and their properties," a paper presented at the 9th Congress on the Chemistry and Physics of High Polymers, 20 Jan - 2 Feb 57, Moscow, Rubber Research Inst.

B-3,084,395

TITYAKOVA, E.Y., BELONOVSKAYA, G.P., and DOLGOPLASK, B. A.

"Low temperature polymerization initiated by di-cholo and properties of the resulting polymers," a paper presented at the 9th Congress on the Chemistry and Physics of High Polymers, 20 Jan-2 Feb 57, Moscow, Polymer Research Inst.

B-3,024,395

TINYAKOVA, Ye. I.

Increasing the adhesion of ... to rubber. ...
...
...

10/1/79-4

AUTHORS: Belonovskaya, G. P.; Dolgoplosk, B. A.; Tinyakova, Ye. I. 62-1-9/21

TITLE: Oxidation-Reduction Systems for the Initiation of Radical Processes. Part 2. Initiation of Polymerization in Aqueous Emulsions under the effect of Reversible Systems at a Temperature of below 0° and Study of the Microstructure of the Polymeric Chain (Okislitel'no-vosstanovitel'nyye sistemy dlya initsirovaniya radikal'nykh protsessov. Soobshcheniye 2. Initsirovaniye polimerizatsii v vodnykh emul'siyakh pod vliyaniyem obratnykh sistem pri temperature nizhe 0° i izucheniye mikrostruktury polimernoy tsepi).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1957, No. 1, pp. 65-69 (U.S.S.R.)

ABSTRACT: The purpose of this report is to study the applicability of an oxidation-reduction system, consisting of dienols, hydrogen peroxide of isopropylbenzene and very small amount of ferric salt or cupric salt, for the initiation of polymerization in an aqueous emulsion at very low temperatures for the purpose of establishing the relation between the

Card 1/3

62-1-9/21

Oxidation-Reduction Systems for the Initiation of Radical Processes.
Part 2. Initiation of Polymerization in Aqueous Emulsions under the
effect of Reversible Systems at a Temperature of below 0° and Study
of the Microstructure of the Polymeric Chain

polymerization temperature and the microstructure of the polymeric
chain. It was found that the application of such system is perfectly
possible for polymerization initiation at temperatures ranging down
to -47°. It is evident from results obtained that the system con-
taining dioxymaleic acid and ferric salt is the most active one but
only in the presence of hydrogen peroxide of r-tertiary-butyl-isopropyl
benzene.

The authors obtained data which established a close relation between the
polymerization temperature of Divinyl and isoprene and the microstructure
of the polymeric chain. A reduction in polymerization temperature
displaces the equilibrium toward a more stable trans-form. Divinyl
polymers at a reduced polymerization temperature show a positive
tendency toward crystallization.

Card 2/3

Tables, graphs, illustrations. There are 11 references, of which
2 are Slavic.

62-1-9/21

Oxidation-Reduction Systems for the Initiation of Radical Processes.
Part 2. Initiation of Polymerization in Aqueous Emulsions under the
effect of Reversible Systems at a Temperature of below 0° and Study
of the Microstructure of the Polymeric Chain

ASSOCIATION:

Academy of Sciences of the USSR, Institute of High Molecular
Compounds

PRESENTED BY:

SUBMITTED:

December 13, 1955

AVAILABLE:

Library of Congress

Card 3/3

Oxidation-reduction systems for initiation of radical processes. IV. Oxidation-reduction systems for initiation of polymerization in hydrocarbon media. E. I. Tsvetkova, B. A. Tolstapolskiy, and M. B. Pabirnovskiy Inst. High Polymers, Acad. Sci. U.S.S.R., Moscow, U.S.S.R.

It was found that the rate of polymerization of styrene in benzene solution in the presence of cumene hydroperoxide and H_2O_2 with various metal naphthenates as catalysts was examined. Kinetic curves of consumption of peroxide and that of polymerization of PhCH_2CH_3 in the presence of cumene hydroperoxide and naphthenates of Co, Cu, Pd, Mn, Pb, Ag, Cr, Ni, Fe were given. The metal naphthenates are arranged in descending series as initiation catalysts: Co, Cu, Pd, Mn, Pb, Ag, Cr, Ni, Fe. The salts of metals with variable valence are quite effective polymerization catalysts. They effectively reduce the activation energy of decomposition of the hydroperoxide as shown by kinetic curves of such decomposition in EtPh at 60-160°. The hydroperoxide, by lowering the valence state of the metal ion by 1 unit, yields RO_2 radicals at a relatively slow rate, while the RO radicals are formed by electron loss by the metal ion at a rapid rate. In the first case H^+ ions are formed; in the 2nd case the other product is HO^- ion.

O.M.K.

Inst. Higher Molecular Compounds.
AS USSR

Oxidation-reduction systems in initiation of radical processes V Oxidation-reduction systems for structure formation of rubbers in hydrocarbon solutions
~~Engelhardt, B. A. (Soviet Chem. Rev. 1964, 33, 1000)~~
~~Polym. Sci. USSR 1964, 6, 1000~~

with various reducing agents can initiate a chain process of radical reactions which results in tridimensional structuring of rubbers in hydrocarbon solvents. Oxygen retards this process and causes destructive oxidation of the polymers. The reactions were followed viscometrically, and kinetic curves of viscosity changes are shown for systems of styrene-butadiene rubber with Bz_2O_2 and di- t -Bu dihydroxymaleate and ferric naphthenate or benzoin and ferric naphthenate or methylenetetrazole and ferric naphthenate or Bz_2O_2 and $PhCMe_2OH$. A curve is also given for butadiene-styrene rubber with $PhCMe_2OH$ and 2-mercaptobenzothiazole, or a similar system with diphenylguanidine, mercaptobenzothiazole, and $PhCMe_2OH$. The combination of dibenzothiazolyl disulfide with diphenylguanidine and $PhCMe_2OH$ is especially active in structure modification of the rubber. Rubber soln. in hydrocarbon solvent in the presence of $PhCMe_2OH$ and SO_2 forms a gel within 1 min. of introduction of SO_2 ; in absence of the peroxide the reaction does not proceed and 2- C_6H_5NHPh tends to retard the reaction.

G. M. Kasolapoff

E. I. Turyakova, E. I.
Oxidation-reduction systems for initiation of radical processes. VI. Systems with participation of oxygen for initiation of the process of oxidative destruction of polymers.
 E. I. Turyakova, B. A. Dolgopiat, and V. N. Reikh (High Polymer Inst., Acad. Sci. U.S.S.R., Leningrad). *Izv. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1957, 1111-21; cf. *C.A.* 52, 1683g. — Com. butadiene rubber and butadiene-styrene rubber samples were used in a study of viscosity changes produced by O attack on the polymers in the presence of Fe(III) naphtholate, with and without 2-C₆H₅-NHPb, with org. addends such as PhNHNH₂, (PhNH)₂, di-Et dihydroxymaleate, benzoin, di-*tert*-butylhydroquinone, trichlorothiophenol, or mercaptobenzothiazole. Kinetic curves for the oxidation of the polymers and those for the action of H₂O₂ on the rubber polymers are shown for the indicated examples. It was shown that in hydrocarbon media these reduction-oxidation systems can be used for effective initiation of radical chain destruction of polymers at room temp.
 G. M. Kosolapoff

Distr: 4E4j/4E3d/4E2c (M)

TINYAKOVA, Ye. I.

DOLGOPLOSK, B.A., professor; TINYAKOVA, Ye.I., kandidat tekhnicheskikh nauk.

Basic types of oxidation-reduction systems for the initiation of radical processes in aqueous and hydrocarbon media and the mechanism of their reaction. Khim. nauka i prom. 2 no.3:280-298 '57.

(Oxidation-reduction reaction) (MLRA 10:8)
(Polymerization) (Radicals (Chemistry))

TINYAKOVA, Ye.I.
TINYAKOVA, Ye.I.; DOLGOPOLOSK, B.A.; REYKH, V.N.

Redox systems for initiating radical processes. Report No.6:
Systems with participation of oxygen for initiating the process
of oxidation destruction of polymers. Izv. AN SSSR. Otd. khim.
nauk no.9:1111-1121 S '57. (MIRA 10:12)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Oxidation--Reduction reaction) (Polymers)

DOLGOPILOSK, B.A.; ~~TINYAKOVA, Ye.I.~~; REYKH, V.N.; ZHURAVILEVA, T.G.;
~~BELONOVSKAYA, G.P.~~

Carboxyl-containing rubbers. Part 1: Synthesis of carboxyl-
containing rubbers and the study of the structure of polymers and
vulcanized rubber. Kauch. i rez. 16 no.3:11-14 Mr '57.
(MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
Kauchuka.

(Rubber, Synthetic) (Carboxyl group) (Polymers)

DOLGOPLOSK, B.A.; REYKH, V.N.; TINYAKOVA, Ye.I.; KALAUS, A.Ye.;
KORYUSHENKO, Z.A.; SLADKEVICH, Ye.G.

Carboxyl-containing rubbers. Report no. 2: Basic qualities
of vulcanizates from carboxyl-containing rubbers. Kauch. i rez.
16 no.6:1-6 Je '57. (MIRA 10:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S.V. Lebedeva.
(Rubber, Synthetic)
(Vulcanization)

11040000, Ye. I.

AUTHORS:

Dolgoplosk, B. A., Ierusalimskiy, B. L., 62-58-4-13/30
Tinjakova, Ye. I.

TITLE:

Generation of Free Radicals in Solutions and Their
Reactions in Model Systems (Generirovaniye svobodnykh
radikalov v rastvorakh i ikh reaktsii v model'nykh
sistemakh). Report of the Conference on Chemical
Sciences of the AS USSR on October 30, 1957 (Doklad
na sessii otdeleniya Khimicheskikh nauk Akademii nauk
SSSR, 30 oktyabrya 1957)

PERIODICAL:

Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh
Nauk, 1958, Nr 4, pp. 462-481 (USSR)

ABSTRACT:

The present paper gives the final results of the work
of the authors with - in the field of oxidation - and
reduction initiation of radical processes and the in-
vestigation of a number of reactions of free radicals.
Corresponding to their action the oxidation and reduc-
tion systems are given in 3 groups (Ref. 1): To the
first kind belong systems in which the reaction takes
place between the reducing agent and the oxidizing agent

Card 1/3

22-51-11/52

Generation of Free Radicals in Solutions and Their Reactions in Model Systems. Report of the Conference on Chemical Sciences of the AS USSR on October 30, 1957

by forming a radical (see formulae 1,2,3). The detailed description of the first type (system with peroxides) follows. Also systems in which also metal salts with varying valence take part (as oxidizing agents) also belong here. The systems of the second kind are of interest in theoretical and practical respects (second type). Among them is also a system which acts with hydroquinone taking part. This system was utilized industrially (initiation of polymerizations in emulsions). There is still a number of other systems in which the reactions take part between the oxidizing agent and the reducing agent by formation of 2 radicals. Those systems belong to the third kind which have a participation of the diazoamino compounds. 2. Systems with participation of ethylenediamine and polyethylenepolyamine. 3. Systems with participation of sulfur and oxygen (as oxidizing agents). After classification of the systems according to their mechanisms the report deals with the different reactions of alkyl- and heteroradicals with various mo-

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02-58-4-13/32

Generation of Free Radicals in Solutions and Their Reactions in
Model Systems. Report of the Conference on Chemical Sciences
of the AS USSR on October 30, 1957

monomers and polymers on which occasion a break of the
bonds C-H, C=C, C - C and S - S is formed.
Finally the part played by the cell in the heat stability of polymers was investigated.
There are 2 tables and 44 references, 40 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii
nauk SSSR (Institute for High-Molecular Compounds, AS
USSR)

SUBMITTED: December 23, 1957

AVAILABLE: Library of Congress

1. Chemical conference--Report . 2. Free radicals--Solutions--Reactions 3. Free radicals--Solutions--Generation

Card 3/3

AUTHORS: Tinyakova, Ye., I., Bogomol'nyy, V.Ya., 317/42-5-9-12/26
~~Zhuravleva, T.G.~~

TITLE: Reactions of the Triazenes With Dienols and Acids in An-
hydrous Hydrocarbon Media (Reaktsii triazenov s dienolami
i kislotami v uglevodorodnykh bezvodnykh sredakh)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1958, Nr 9, pp 1094 - 1098 (USSR)

ABSTRACT: It has already been found that the decomposition of aliphatic-
aromatic triazenes in **anhydrous** media is accelerated
by the catalytic effect of dienols and acids or acid-
containing substances. The decomposition of triazenes can
also be definitely accelerated in **anhydrous** hydrocarbon
media in the presence of acids. This reaction is not a
catalytic one, since esters form during the reaction
(Refs 2,3). The authors were interested in the application
of this reaction to the quantitative determination of
carboxyl groups in organic compounds. They considered
the investigation of the reaction between the triazenes
and dienols in **anhydrous** media of still greater im-
portance because of the possible use of this reaction

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Reactions of the Triazenes With Dienols and Acids in
Anhydrous Hydrocarbon Media

SVN/12-36-9-11/26

in the alkylation or arylation of dienol groups. It was found that in **anhydrous** hydrocarbon media dioxymaleic acid and its diethyl ester and ascorbic acid accelerate the decomposition of the triazenes. The reaction is accompanied by the formation of nitrogen and the alkylation (or arylation) of the carboxyl and dienol groups. The authors found that the decomposition reaction of triazenes under the effect of acids can be used for the volumetric quantitative determination of carboxyl groups (especially in polymers) in **anhydrous** hydrocarbon media. There are 2 figures, 3 tables, and 8 references, 4 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soedineniy Akademii nauk SSSR
(Institute of High Molecular Compounds, AS USSR)

SUBMITTED: January 30, 1957

Card 2/2

AUTHORS: Tinyakova, Ye. I., Khrennikova, Ye. K., SOV/79-28-12-24/41
Dolgoplosk, B. A.

TITLE: On the Effective Mechanism of the Accelerators in the Process
of Sulfur Vulcanization (O mekhanizme deystviya uskoriteley
protssess: sernoy vulkanizatsii)

PERIODICAL: Zhurnal obshchey khimii, 1958. Vol 28, Nr 12, pp 3269-3274
(USSR)

ABSTRACT: To explain the effective mechanism of the accelerators in the
vulcanization it was necessary to investigate the composition
of the products formed in the reaction with sulfur in various
solvents, and to compare them to the composition of the de-
composition products of H_2S_2 in the same solvents. For this
reason, the reaction of monoethanol amine, ethylene diamine
and fructose with sulfur in the pentenes-1 and -2, in cyclo-
hexane, isoprene, α -methyl styrene, styrene, ethyl benzene,
and in rubber solution at 130-160° was investigated. This pro-
cess was characterized according to the formation of H_2S . In
the case of the reaction of monoethanol amine with sulfur in
the pentenes-1 and -2 all main reaction products were separated

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On the Effective Mechanism of the Accelerators
in the Process of Sulfur Vulcanization

SOV/79-28-12-24/41

and characterized. In table 1 the data are mentioned which characterize the formation of H_2S in the reaction of sulfur with the vulcanization accelerators, as well as in the decomposition of H_2S_2 in various solvents. In table 2 the experimental results of the composition of the reaction products of sulfur with monoethanol amine in the solution of pentenes-1 and -2 are mentioned together with the results of the experiments on the decomposition of H_2S_2 , which are given for the purpose of comparison. It was shown that the reaction of sulfur with various reducing agents which occur in the sulfur vulcanization as accelerators takes place by way of an intermediate stage of H_2S_2 under the formation of S^\cdot and S_2^\cdot . Based on the investigation of the composition of the products formed in the reaction of sulfur with the vulcanization accelerators and in the decomposition of H_2S_2 in α - and β -olefins, a more detailed information on the mechanism of the occurring sulfur formations in the vulcanization process is obtained, and the part is

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On the Effective Mechanism of the Accelerators
in the Process of Sulfur Vulcanization

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detected which is played by the accelerators therein. It was shown that the outer double bonds are much more reactive in the reaction with the radicals $HS\cdot$ and $HS_2\cdot$ than the inner ones. At temperatures up to 130° the radicals $HS\cdot$ do not separate hydrogen from the aliphatic hydrocarbon solvents. There are 2 tables and 13 references, 8 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soedineniy Akademii nauk SSSR
(Institute of High-Molecular Compounds, Academy of Sciences, USSR)

SUBMITTED: November 10, 1957

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5(3)

SOV/79-29-4-50/77

AUTHORS: Tinyakova, Ye. I., Zhuravleva, T. G.

TITLE: On the Decomposition Mechanism of Isopropylbenzene Hydrogen Peroxide Under the Influence of Salts of Metals of Variable Valencies (O mekhanizme raspada gidroperekisi izopropilbenzola pod vliyaniyem soley metallov peremennoy valentnosti)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1262-1269 (USSR)

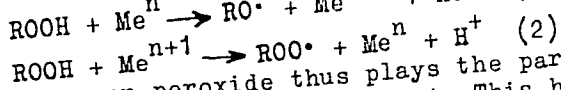
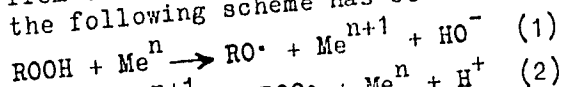
ABSTRACT: The study of the effect of these salts on the decomposition of hydrogen peroxides is of great importance on account of the role played by them in the oxidation, polymerization, and other radical processes. It is known that salts of this kind in their lower oxide- and oxide forms accelerate the decomposition of hydrogen peroxide catalytically. The decomposition of hydrogen peroxides in aqueous solutions below 50°, and in hydrocarbon solutions below 90-100° takes place only under the influence of ferrous salts, hydrogen peroxide and salts Fe^{2+} being consumed in equivalent quantities. In hydrocarbon solutions the catalytic splitting of hydrogen peroxide under the influence of small amounts of ferric salts takes place only at 100° and up, while the reaction takes place instantly even at

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On the Decomposition Mechanism of Isopropylbenzene Hydrogen Peroxide Under
the Influence of Salts of Metals of Variable Valencies

-70° if the ferrous salt is used (Ref 1). The decomposition of hydrogen peroxides is also accelerated by the salts of other metals, e.g. by the naphthenates of Co, Cu, Pd, Mn, Pb, Ag, Cr, Ni, and Fe; the activity of the metals drops in that series from Co to Fe. For the mechanism of the effect of these metals the following scheme has been suggested (Ref 1):



Hydrogen peroxide thus plays the part alternatively of an oxidizing and reducing agent. This has, however, not yet been proved by experiments. In the present paper the experimental data regarding the decomposition of isopropylbenzene hydrogen peroxide in the presence of the naphthenates of the metals Mn, Cu, Co, and Pd in various solvents are given. The results confirm the validity of the suggested scheme. Tables and figures illustrate these results. There are 3 figures, 2 tables, and 17 references, 4 of which are Soviet.

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SOV/79-29-4-50/77
On the Decomposition Mechanism of Isopropylbenzene Hydrogen Peroxide Under
the Influence of Salts of Metals of Variable Valencies

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR
(Institute of High Molecular Weight Compounds of the
Academy of Sciences USSR)

SUBMITTED: March 3, 1958

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